ABSTRACT

The TPSF-based imaging technique uses multiple wavelengths to image an object simultaneously. Acquisition time of an image can be shortened without sacrificing the effective amount or quality of raw imaging data acquired. A plurality of distinguishable wavelengths may be used simultaneously at different injection-detection positions to acquire simultaneously a plurality of TPSF-based imaging data points for the different injection-detection positions. The multiple wavelengths may provide complementary information about the object being imaged.